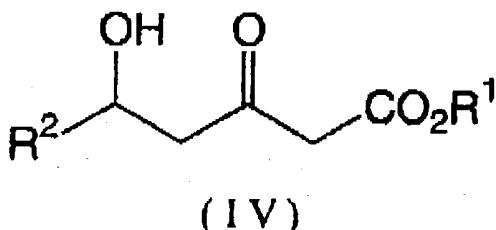


**AMENDMENTS TO THE CLAIMS**

In the claims:

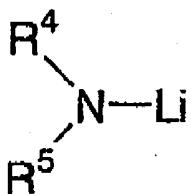
Please amend the claims as follows:

1. (Twice Amended) A process for producing a 5-hydroxy-3-oxopentanoic acid derivative of the following formula (IV):



wherein R<sup>1</sup> represents any of an alkyl group of 1 to 12 carbon atoms, an aryl group of 6 to 12 carbon atoms and an aralkyl group of 7 to 12 carbon atoms; and R<sup>2</sup> represents any of hydrogen, an alkyl group of 1 to 12 carbon atoms which may have a substituent, an alkenyl group of 2 to 12 carbon atoms which may have a substituent, an aryl group of 6 to 12 carbon atoms which may have a substituent, an aralkyl group of 7 to 12 carbon atoms which may have a substituent, a cyano group, a carboxyl group and an alkoxy carbonyl group,

which comprises [permitting] adding a lithium amide of the following formula (III):

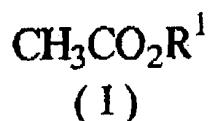


(III)

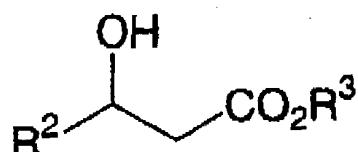
wherein R<sup>4</sup> and R<sup>5</sup> may be the same or different and each represents any of an alkyl group of 1 to 12 carbon atoms, an aryl group of 6 to 12 carbon atoms, an aralkyl group of 7 to 12 carbon atoms and a silyl group,

to [act upon] a mixture of an acetic acid ester of the following formula (I) and a 3-hydroxypropionic acid

derivative of the following formula (II) at a temperature not below -20 °C to conduct reaction:



wherein R<sup>1</sup> represents any of an alkyl group of 1 to 12 carbon atoms, an aryl group of 6 to 12 carbon atoms and an aralkyl group of 7 to 12 carbon atoms:



(II)

wherein R<sup>2</sup> represents any of hydrogen, an alkyl group of 1 to 12 carbon atoms which may have a substituent, an alkenyl group of 2 to 12 carbon atoms which may have a substituent, an aryl group of 6 to 12 carbon atoms which may have a substituent, an aralkyl group of 7 to 12 carbon atoms which may have a substituent, a cyano group, a carboxyl group and an alkoxy carbonyl group; R<sup>3</sup> represents any of an alkyl group of 1 to 12 carbon atoms, an aryl group of 6 to 12 carbon atoms and an aralkyl group of 7 to 12 carbon atoms; and R<sup>2</sup> and R<sup>3</sup> may be joined to each other to form a ring, in the presence of a magnesium halide.